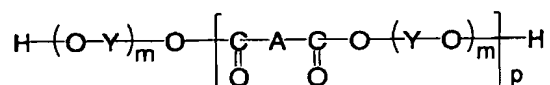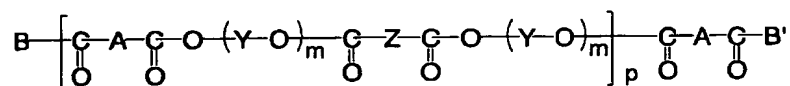WHAT IS CLAIMED IS:

1. A diamine compound polymer comprising a condensed aromatic group selected from the groups represented by the following formulae (I-1) and (I-2):
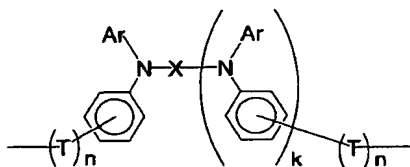
$$H-(O-Y)_{\overline{m}}-O-\left[\underset{\overset{\|}{O}}{C}-A-\underset{\overset{\|}{O}}{C}-O-(Y-O)_{\overline{m}}\right]_p-H$$

(I-1)

$$B-\left[\underset{\overset{\|}{O}}{C}-A-\underset{\overset{\|}{O}}{C}-O-(Y-O)_{\overline{m}}-\underset{\overset{\|}{O}}{C}-Z-\underset{\overset{\|}{O}}{C}-O-(Y-O)_{\overline{m}}\right]_p-\underset{\overset{\|}{O}}{C}-A-\underset{\overset{\|}{O}}{C}-B'$$

(I-2)

wherein A represents a structure represented by the following formula (II-1); Y and Z represent divalent hydrocarbon groups; B and B' each independently represents a group represented by -O-(Y-O)m-H or -O-(Y-O)m-CO-Z-CO-OR', wherein R' is a hydrogen atom, an aralkyl group, a substituted or non-substituted aryl group, or a substituted or non-substituted aralkyl group; m represents an integer from 1 to 5; and p represents an integer from 5 to 5000;

(II-1)

wherein Ar represents a substituted or non-

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substituted monovalent aromatic group; X represents a substituted or non-substituted divalent condensed aromatic group; T represents a divalent linear hydrocarbon group having 1 to 6 carbon atoms or a divalent branched hydrocarbon group having 2 to 10 carbon atoms; and k and n each represents an integer of 0 or 1.
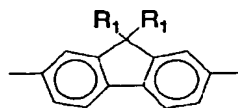
2. A diamine compound polymer according to claim 1, wherein X in the formula (II-1) is a divalent aromatic compound selected from the group consisting of the following structural formulae (III-1), (III-2) and (III-3):

(III-1)   (III-2)   (III-3)

wherein R_1 represents a hydrogen atom, aralkyl group, a substituted or non-substituted aryl group, or a substituted or non-substituted aralkyl group.
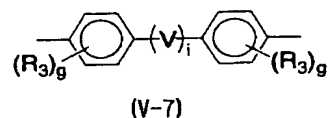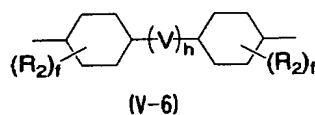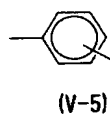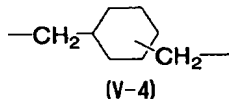
3. A diamine compound polymer according to claim 1,
    wherein X in the formula (II-1) is a divalent aromatic compound represented by the structural formula (III-1), and

X is bonded to the nitrogen atoms in the formula (II-1) at positions 1 and 4 or positions 2 and 6 in the formula (III-1).
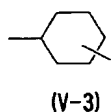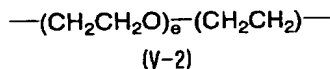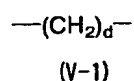
4. A diamine compound polymer according to claim 1,

wherein X in the formula (II-1) is a divalent

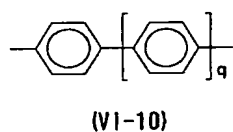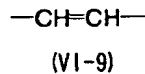aromatic compound represented by the structural formula

(III-2), and

X is bonded to the nitrogen atoms in the formula (II-1) at positions 9 and 10 in the formula (III-2).

5. A diamine compound polymer according to claim 1,

wherein Y and Z are independently selected from the

group consisting of the following formulae (V-1) to (V-7):

$$-(CH_2)_d- \qquad -(CH_2CH_2O)_e-(CH_2CH_2)-$$
$$\text{(V-1)} \qquad\qquad \text{(V-2)}$$

(V-3)

$$-CH_2\text{<cyclohexyl>}CH_2-$$
(V-4)

(V-5)

$$(R_2)_f\text{<cyclohexyl>}(V)_h\text{<cyclohexyl>}(R_2)_f$$
(V-6)

$$(R_3)_g\text{<phenyl>}(V)_i\text{<phenyl>}(R_3)_g$$
(V-7)

wherein R_2 and R_3 each represents a hydrogen atom, an

alkyl group having 1 to 4 carbon atoms, an alkoxy group

having 1 to 4 carbon atoms, a substituted or non-

substituted phenyl group, a substituted or non-substituted

aralkyl group, or a halogen atom; d and e each represents

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an integer from 1 to 10; f and g each represents an integer of 0, 1 or 2; h and i each represents an integer of 0 or 1; and V represents a group selected from the following formulae (VI-1) to (VI-10);

$$-(CH_2)_j-$$
(VI-1)

$$-C(CH_3)_2-$$
(VI-2)

$$-O-$$
(VI-3)

$$-S-$$
(VI-4)

(VI-5)

(VI-6)

$$-C(CF_3)_2-$$
(VI-7)

$$-Si(CH_3)_2-$$
(VI-8)

$$-CH=CH-$$
(VI-9)

(VI-10)
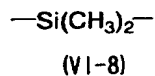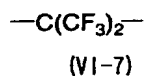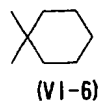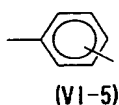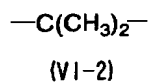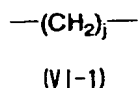
wherein j represents an integer from 1 to 10; and q represents an integer from 1 to 3.

6.   A diamine compound polymer according to claim 1, wherein Ar represents a substituted or non-substituted monovalent aromatic group containing 1 to 10 aromatic rings.

7.   A diamine compound polymer according to claim 1, wherein T represents a divalent linear hydrocarbon group having 2 to 6 carbon atoms or a divalent branched hydrocarbon group having 3 to 7 carbon atoms.

8.   A method for producing a diamine compound polymer
having a condensed aromatic group selected from the groups
represented by the following formulae (I-1) and (I-2), the
method comprising the step of polymerizing monomers
represented by the following formula (VII-1):
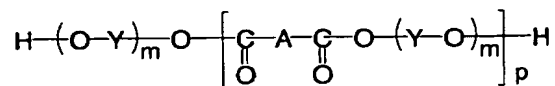
$$\text{H}-(\text{O}-\text{Y})_m\text{O}-\left[\underset{\underset{\text{O}}{\|}}{\text{C}}-\text{A}-\underset{\underset{\text{O}}{\|}}{\text{C}}-\text{O}-(\text{Y}-\text{O})_m\right]_p-\text{H}$$

(I-1)

$$\text{B}-\left[\underset{\underset{\text{O}}{\|}}{\text{C}}-\text{A}-\underset{\underset{\text{O}}{\|}}{\text{C}}-\text{O}-(\text{Y}-\text{O})_m\underset{\underset{\text{O}}{\|}}{\text{C}}-\text{Z}-\underset{\underset{\text{O}}{\|}}{\text{C}}-\text{O}-(\text{Y}-\text{O})_m\right]_p\underset{\underset{\text{O}}{\|}}{\text{C}}-\text{A}-\underset{\underset{\text{O}}{\|}}{\text{C}}-\text{B'}$$

(I-2)

wherein A represents a structure represented by the
following formula (II-1); Y and Z represent divalent
hydrocarbon groups; B and B' each independently represents
a group represented by -O-(Y-O)m-H or -O-(Y-O)m-CO-Z-CO-OR',
wherein R' is a hydrogen atom, an aralkyl group, a
substituted or non-substituted aryl group, or a substituted
or non-substituted aralkyl group; m represents an integer
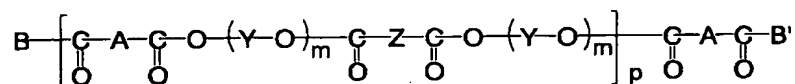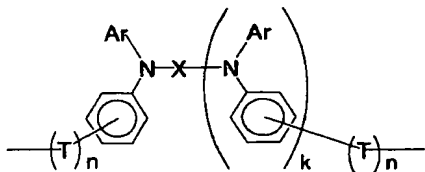from 1 to 5; and p represents an integer from 5 to 5000;
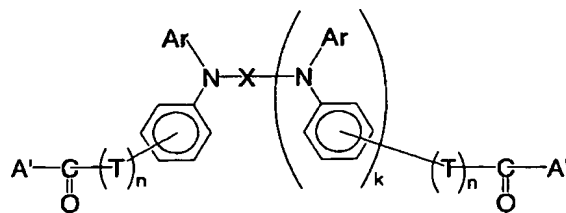
(II-1)   (VII-1)

wherein Ar represents a substituted or non-substituted monovalent aromatic group; X represents a substituted or non-substituted divalent condensed aromatic group; T represents a divalent linear hydrocarbon group having 1 to 6 carbon atoms or a divalent branched hydrocarbon group having 2 to 10 carbon atoms; and k and n each represents an integer of 0 or 1; and A' represents a hydroxyl group, a halogen atom or a group represented by -O-R$_4$, wherein R$_4$ is an alkyl group, a substituted or non-substituted aryl group or an aralkyl group.

9. A method for producing a diamine compound polymer including a condensed aromatic group selected from the groups represented by the following formula (I-1) or (I-2), the method comprising the step of polymerizing a monomer represented by the following formula (VIII-1):

$$\text{H}-\left(\text{O}-\text{Y}\right)_{\!m}\text{O}-\left[\begin{array}{c}\underset{\text{O}}{\overset{\text{O}}{\text{C}}}\text{-A-}\underset{\text{O}}{\overset{\text{O}}{\text{C}}}\text{-O-}\left(\text{Y}-\text{O}\right)_{\!m}\end{array}\right]_{\!p}\!\!\text{-H}$$

(I-1)

$$\text{B}-\left[\underset{\text{O}}{\overset{\text{O}}{\text{C}}}\text{-A-}\underset{\text{O}}{\overset{\text{O}}{\text{C}}}\text{-O-}\left(\text{Y}-\text{O}\right)_{\!m}\underset{\text{O}}{\overset{\text{O}}{\text{C}}}\text{-Z-}\underset{\text{O}}{\overset{\text{O}}{\text{C}}}\text{-O-}\left(\text{Y}-\text{O}\right)_{\!m}\right]_{\!p}\underset{\text{O}}{\overset{\text{O}}{\text{C}}}\text{-A-}\underset{\text{O}}{\overset{\text{O}}{\text{C}}}\text{-B'}$$
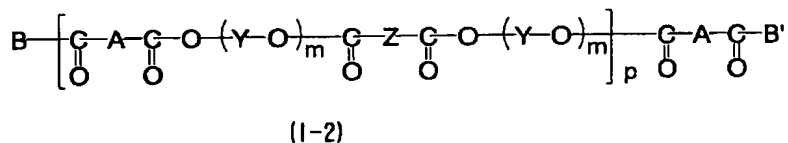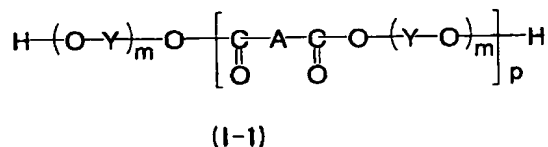
(I-2)

wherein A represents a structure represented by the following formula (II-1); Y and Z represent divalent hydrocarbon groups; B and B' each independently represents

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a group represented by -O-(Y-O)m-H or -O-(Y-O)m-CO-Z-CO-OR',

wherein R' is a hydrogen atom, an aralkyl group, a

substituted or non-substituted aryl group, or a substituted

or non-substituted aralkyl group; m represents an integer

from 1 to 5; and p represents an integer from 5 to 5000;
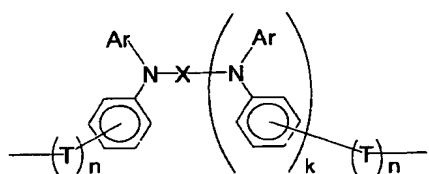
(II-1)
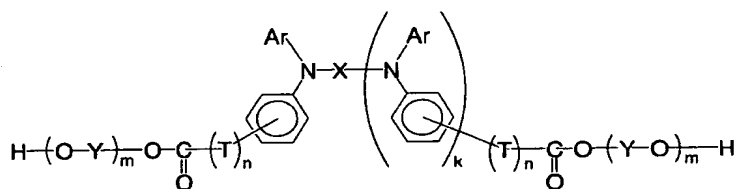
(VIII-1)

wherein Ar represents a substituted or non-

substituted monovalent aromatic group; X represents a

substituted or non-substituted divalent condensed aromatic

group; T represents a divalent linear hydrocarbon group

having 1 to 6 carbon atoms or divalent branched hydrocarbon

group having 2 to 10 carbon atoms; k and n each represents

an integer of 0 or 1; Y represents a divalent hydrocarbon

group; and m represents an integer from 1 to 5.